

REMARKS

Claims 1, 3-11, 13-34, 36-53, 55-57, 68-73, and 75 are pending. Claims 2, 35, 58-60, and 74 are cancelled without prejudice and without disclaimer of the subject matter. Claims 1, 3, 11, 16, 17, 20, 29, 31, 32, 34, 42-44, 51, 69 are amended. No new matter was added. Support for the amendments may be found in at least paragraphs [0026]-[0029] of the specification. Applicant respectfully requests reconsideration in view of the amendments and the following remarks.

Claim Rejections – 35 USC §101

Claims 1-10 stand rejected under 35 USC §101 as directed to non-statutory subject matter. If a "computer program is ... claimed as part of an otherwise statutory manufacture or machine ... the claim remains statutory irrespective of the fact that a computer program is included in the claim." MPEP §2106.01. Claim 1 recites the features of a "computer system, comprising: a network interface." A "network interface" includes a device. (Specification, ¶[0017].) Claims 2-10 depend from claim 1. Accordingly, Applicant respectfully requests withdrawal of the 35 USC §101 rejections of claims 1-10.

Claim Rejections – 35 USC §103

Claims 1-8, 11, 13-25, 28-36, 38-40, 42-49, 51, 53-60, and 68-75 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,761,430 to Gross et al. ("Gross") in view of U.S. Patent No. 5,487,167 to Dinallo et al. ("Dinallo") and U.S. Patent Application Publication 2001/0037382 A1 by Anttila ("Anttila"), and U.S. Patent Application Publication 2001/0009554 A1 by Katseff et al. ("Katseff"). Claims 9, 37, 50, and 52 stand rejected under 35 USC §103(a) as being obvious in view of the combination of Gross, Dinallo, Anttila, Katseff and U.S. Patent Application Publication 2007/0153774 A1 by Shay et al. ("Shay"). Claims 10, 27, and 41 were rejected under 35 USC §103(a) as being obvious in view of the combination of Gross, Dinallo, Anttila, and Katseff and further in view of U.S. Patent Application Publication 2001/0001564 A1 by Smyers ("Smyers"). Claim 26 was rejected under 35 USC §103(a) as being obvious

in view of the combination of Gross, Dinallo, Anttila, Katseff, and U.S. Patent No. 6,675,054 B1 to Ruberg ("Ruberg"). Claims 2, 35, 58-60, and 74 are cancelled rendering their respective rejections moot. For the following reasons, Gross, Dinallo, Katseff, Anttila, Shay, Smyers, and Ruberg, either alone or in combination, fail to teach or suggest all of the features of claims 1, 3-11, 13-34, 36-53, 55-57, 68-73, and 75.

Claim 1

Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 1 of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group without interruption to process the isochronous audio packets received via the switched network" (emphasis Applicant's). Contrary to the assertion on page 6, lines 13-14, Gross fails to describe the features of claim 1 of "an isochronous audio application executable within the multi-tasking operating system substantially in parallel with other applications." As acknowledged on page 7, lines 5-6 of the Office Action, Gross fails to describe the features of claim 1 of "the multi-tasking operating system" and the "network interface driver." Because Gross fails to describe "the multi-tasking operating system," Gross certainly fails to describe "an isochronous audio application executable within the multi-tasking operating system." In contrast, Gross describes a circuit that includes an Ethernet controller 12, an Ethernet transceiver 10 and a timing circuit 20. (Gross, Col. 2, lines 6-7; and Fig. 2A.) The circuit may receive and transmit synchronous data to and from another device, such as a compact disk player, via a synchronous receiver 30 and a synchronous transmitter 32, respectively. (Gross, Col. 4, lines 48-53.)

Since Gross fails to describe the features of "the multi-tasking operating system ... the network interface driver, the isochronous audio driver, and the isochronous audio application" as recited in claim 1, then Gross also fails to describe the features of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group

without interruption to process the isochronous audio packets received via the switched network." Contrary to the assertion on page 8, lines 13-18, invoking an interrupt handler in the circuit "any time there is an event" generated by an Ethernet controller 12 or a timer 20 does not describe these features. (Gross, Col. 5, lines 46-49.) In addition, contrary to the assertion on page 8, lines 19-20, executing a frame interrupt handler in the circuit for each clock pulse generated by an oscillator 66 does not describe these features either. (Gross, Col. 6, lines 17-28.) The frame interrupt handler checks whether there is isochronous data in a FIFO buffer 41, and then an audio/video processor 50 buffers "the received isochronous data packet in the synchronous I/O 68... until the destination synchronous I/O device is ready for the data" (Gross, Col. 14, lines 14-35; FIG. 10 and 2B) (emphasis Applicant's). Accordingly, Gross fails to describe the features of claim 1 of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group without interruption to process the isochronous audio packets received via the switched network" (emphasis Applicant's).

Katseff also fails to describe these features. In contrast, Katseff describes a protocol converter 48 in a first node 46 that receives TCP packets from a first computer 42, converts the TCP packets to UDP packets, and transmits the UDP packets to a second node 50. (Katseff, ¶¶[0019]-[0021]; FIG. 2). A protocol converter 52 in the second node 50 converts the UDP packets back to TCP packets and routes the TCP packets to a second computer 44 over, for example, regular phone lines 51. (Katseff, ¶¶[0019]-[0021]; FIG. 2) Thus, the protocol converters in the network 40 facilitate "two-way transmission of data between ... applications" running on the first computer 42 and the second computer 44 ([0020])(emphasis Applicant's). Katseff describes an incoming message being detected at the protocol converter and the operating system sending a network interrupt for the incoming message. (¶[0034].) Katseff is silent on "the network interface driver" and "the isochronous audio driver." Therefore, Katseff fails to describe the features of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group

without interruption to process the isochronous audio packets received via the switched network."

As acknowledged on lines 1-2 of Page 8 of the Office Action, Dinallo and Anttila do not describe the features of "the network interface driver is executable to provide the stream of packets ... in response to an interrupt provided ... by the multi-tasking operating system." It logically follows that Dinallo and Anttila also fail to describe the features of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group without interruption to process the isochronous audio packets received via the switched network" (emphasis Applicant's).

For the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to describe all of the features of claim 1 of "in response to a single interrupt request, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio application as a group without interruption to process the isochronous audio packets." In addition, these same features would not have been obvious to a person skilled in the art who combined the interrupt handler in the circuit described in Gross that buffers an isochronous data packet until a destination synchronous I/O device is ready for the data; the operating system described in Dinallo; the protocol stack described in Anttila; and the operating system described in Katseff that sends a network interrupt for each incoming message. USPTO personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. MPEP §2106. Instead, the claim as a whole must be considered. MPEP §2106. Therefore, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest all of the features of claim 1.

Claims 3-10 and 68

Claims 3-10 and 68 depend from, and include the features of, claim 1. Thus, claims 3-10 and 68 are allowable for at least the same reasons that claim 1 is allowable.

Claim 11

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 11 of "in response to a single interrupt request generated by the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the second application as a group without interruption to process the isochronous audio packets received via the switched network, and the single interrupt request is included in the interrupt request provided to the network interface."

Claims 13-19

Claims 13-19 depend from, and include the features of, claim 11. Thus, claims 13-19 are allowable for at least the same reasons that claim 11 is allowable.

Claim 20

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 20 of "where, in response to only one interrupt request generated by the multi-tasking operating system, the isochronous audio driver and the isochronous audio application execute sequentially as a group without interruption to process isochronous audio packets received from the switched network."

Claims 21-28

Claims 21-28 depend from, and include the features of, claim 20. Thus, claims 21-28 are allowable for at least the same reasons that claim 20 is allowable.

Claim 29

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 29 of "where, in response to a single interrupt request from the multi-tasking operating system, the

network interface driver, the isochronous audio software, and a first one of the applications are executed as a group without interruption to process the isochronous audio packets received via the switched network, and the single interrupt request is included in the interrupt request provided to the network interface."

Claims 30-33

Claims 30-33 depend from, and include the features of, claim 29. Thus, claims 30-33 are allowable for at least the same reasons that claim 29 is allowable.

Claim 34

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 34 of "in response to a single interrupt request from the multi-tasking operating system, the multi-tasking operating system sequentially executes a network interface driver in the network interface, the isochronous audio software, and an isochronous audio application as a group without interruption to process the isochronous audio packets received via the switched network."

Claims 36-41

Claims 36-41 depend from, and include the features of, claim 34. Thus, claims 36-41 are allowable for at least the same reasons that claim 34 is allowable.

Claim 42

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 42 of "in response to a single interrupt request generated by the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver, the isochronous audio driver, and the isochronous audio software, as a group without interruption."

Claims 43-50

Claims 43-50 depend from, and include the features of, claim 42. Thus, claims 43-50 are allowable for at least the same reasons that claim 42 is allowable.

Claim 51

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 51 of "in response to a single interrupt request generated by the multi-tasking operating system, the multi-tasking operating system sequentially executes the network interface driver and the isochronous audio software as a group without interruption."

Claims 52, 53, and 55-57

Claims 52, 53, and 55-57 depend from, and include the features of, claim 51. Thus, claims 52, 53, and 55-57 are allowable for at least the same reasons that claim 51 is allowable.

Claim 69

For at least the foregoing reasons, Gross, Dinallo, Anttila, and Katseff, either alone or in combination, fail to teach or suggest the features of claim 69 of "where providing the stream of packets to the isochronous audio driver, processing the stream of packets with the isochronous audio driver, and receiving the isochronous audio data with the isochronous audio application are executed in the multi-tasking operating system without interruption in response to a single interrupt request from the multi-tasking operating system."

Claims 70-73 and 75

Claims 70-73 and 75 depend from, and include the features of, claim 69. Thus, claims 70-73 and 75 are allowable for at least the same reasons that claim 69 is allowable.

For at least the forgoing reasons, Gross, Dinallo, Anttila, Katseff, Shay, Smyers, and Ruberg, either alone or in combination, fail to teach or suggest all of the features of

claims 1, 3-11, 13-34, 36-53, 55-57, 68-73, and 75. Claims 2, 35, 58-60, and 74 are cancelled rendering their rejections moot. Accordingly, Applicant respectfully requests withdrawal of the 35 USC §103(a) rejections of claims 1-11 and 13-53, 55-60, and 68-75.

The present pending claims of this application are allowable and Applicant respectfully requests the Examiner to issue a Notice of Allowance for this application. Should the Examiner deem a telephone conference to be beneficial in expediting allowance/examination of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

Respectfully submitted,
/Michael E. Hussey/

Michael E. Hussey
Attorney Reg. No. 63,265
Attorney for Applicant

MEH/sev

BRINKS HOFER GILSON & LIONE
CUSTOMER NO. 81165
Telephone: 317-636-0886
Facsimile: 317-634-6701